

Applicant: Philip J. Pietraski
Application No.: 10/698,721

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for predicting the a future quality of a communication channel between a transmitter and a receiver; the method comprising:

transmitting a control communication from said transmitter to said receiver, said control communication including information regarding the allocation of resources in a subsequent downlink data communication;

receiving at said receiver said control communication and awaiting said downlink data communication;

transmitting from said transmitter said downlink data communication over a downlink data channel;

receiving at said receiver said downlink data communication;

performing at said receiver at least one current quality measurement on said downlink data communication to determine the current quality of said downlink data channel;

deriving, based on said performing step, a predictive channel quality indication (CQI) estimating the future quality of said downlink data channel; and

transmitting said predictive CQI from said receiver to said transmitter wherein said predictive CQI includes at least one of a recommended transport block size, modulation format, or number of codes; whereby said deriving step estimates the future quality of said downlink data channel to derive said CQI.

2. (Previously presented) The method of claim 1, further including storing said at least one current quality measurement.

3. (Previously presented) The method of claim 2, wherein said deriving step further includes retrieving at least one stored quality measurement and utilizing said at least one stored quality measurement and said at least one current quality measurement to derive said predictive CQI.

4. (Previously presented) The method of claim 1, further including storing said predictive CQI.

5. (Previously presented) The method of claim 1, wherein said deriving step utilizes a linear predictive algorithm to derive said predictive CQI.

6. – 11. Canceled.

12. (Currently Amended) A method for providing predictive channel quality measurements of a downlink communication channel between a receiver to a transmitter; the method comprising:

monitoring said downlink communication channel at said receiver;

performing at least one current quality measurement on said downlink data communication channel to determine the current quality of said downlink data channel;

deriving, based on said performing step, prediction of the future quality of the downlink data communication channel; and

transmitting said prediction to said transmitter, wherein said prediction represents at least one of a recommended transport block size, modulation format, or number of codes.

13. (Previously presented) The method of claim 12, further including storing said at least one current quality measurement.

14. (Previously presented) The method of claim 13, wherein said deriving step further includes retrieving at least one stored quality measurement and utilizing said at least one stored quality measurement and said at least one current quality measurement to derive said prediction.

15. (Previously presented) The method of claim 12, further including storing said prediction.

16. (Previously presented) The method of claim 12, wherein said deriving step utilizes a linear predictive algorithm to derive said prediction.

17. – 31. Canceled.

32. (Currently Amended) A method for predicting ~~the a~~ future quality of a communication channel which is transmitted between a transmitter and a receiver; the method comprising:

transmitting a control communication from said transmitter to said receiver, said control communication including information regarding the allocation of resources in a subsequent downlink data communication;

receiving at said receiver said control communication and awaiting said downlink data communication;

transmitting from said transmitter said downlink data communication over a downlink data channel;

receiving at said receiver said downlink data communication;

transmitting from said transmitter a pilot channel communication over a pilot channel;

receiving at said receiver said pilot channel communication;

performing at said receiver at least one current quality measurement on said downlink data communication and said pilot channel communication to determine the current quality of said downlink data channel;

deriving, based on said performing step, a predictive channel quality indication (CQI) wherein said deriving step estimates the future quality of said downlink data channel; and

transmitting said predictive CQI from said receiver to said transmitter; ~~wherein said deriving step estimates the future quality of said downlink data channel to derive said CQI. wherein said predictive CQI includes at least one of a recommended transport block size, modulation format, or number of codes~~

33. (Previously presented) The method of claim 32, further including storing said at least one current quality measurement.

34. (Previously presented) The method of claim 33, wherein said deriving step further includes retrieving at least one stored quality measurement and utilizing said at least one stored quality measurement and said at least one current quality measurement to derive said predictive CQI.

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35. (Previously presented) The method of claim 32, further including storing said predictive CQI.

36. (Previously presented) The method of claim 32, wherein said deriving step utilizes a linear predictive algorithm to derive said predictive CQI.

37.- 39. Canceled.